

# Postgraduate Diploma Advanced Technologies in Chemical Industry



## Postgraduate Diploma Advanced Technologies in Chemical Industry

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-advanced-technologies-chemical-industry](http://www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-advanced-technologies-chemical-industry)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 22*

06

Certificate

---

*p. 30*

# 01

# Introduction

Process robotization in the chemical industry has boosted product optimization, as well as management, and adaptation to inconveniences. Although these technologies are gradually becoming part of the daily routine of many companies dedicated to the sector, they also require their professionals to be properly up-to-date on their integration. For this reason, TECH has designed this 100% online program where high school students will expand their theoretical and practical knowledge in a comprehensive and flexible way. Its syllabus will delve into digital tools such as Artificial Intelligence and Blockchain, and their impact on Chemical Engineering. In turn, the program will address mechanical, biological, and thermochemical conversion of biomass. All this without hermetic schedules and under the guidance of a distinguished faculty.





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*You will assimilate the applications of Artificial Intelligence in Chemical Engineering in a fast way through the innovative Relearning methodology implemented in this program"*

The incorporation of digital and disruptive technologies is transforming the Chemical Industry. Specifically, virtual tools such as Artificial Intelligence accelerate material discovery and model reactions, improving efficiency and empowering scientific evidence-based decision making. On the other hand, the Blockchain ensures traceability in contexts such as supply chains, guaranteeing the authenticity of products, simplifies record management, and facilitates secure transactions. Therefore, through all these innovative resources, companies in the sector can adapt and prosper in a changing environment.

At the same time, keeping abreast of technological advances in this field has become a challenge and a requirement for professionals in the Chemical Industry. Faced with this situation, TECH has designed this Postgraduate Diploma where students will have an up-to-date syllabus that will address all the complexities of the new digital and robotic resources.

The program, in the first place, delves into different virtual facilities that enhance research and production within the sector. It also delves into those that promote process security and transparency. In addition, it focuses on the sustainable use of biomass and its various conversions. Finally, the student will have the opportunity to examine the relationship between research, innovation, and communication in the most cutting-edge areas of Chemistry.

This educational itinerary will take place on a 100% online platform, which facilitates access to explanatory videos, interactive summaries, and other multimedia resources. For the approach of its contents, the Relearning methodology will be applied, which allows the assimilation of complex concepts and skills through repetition. In addition to all this, there is the opportunity to freely access the study materials, without hermetic schedules and their availability through any device connected to the Internet. Definitively, TECH offers its graduates the possibility of updating their knowledge at any time and in any part of the world.

This **Postgraduate Diploma in Advanced Technologies in Chemical Industry** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of case studies presented by experts in Chemical Engineering
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*Don't miss the opportunity to holistically address sustainable uses of biomass and its various conversions"*

“

*After this program you will master the relationships between research, innovation, and communication in Chemical Industry”*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the educational year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*A 6-month educational itinerary that you can access from the portable device of your choice.*

*You will handle various technologies such as Blockchain and its impact on the Chemical Industry through this comprehensive program.*



# 02 Objectives

The central premise of this Postgraduate Diploma is to provide the student with the most up-to-date knowledge and skills in relation to the technologies that operate in the Chemical Industry today. Specifically, the program will delve into advances such as Nanotechnology and the most sophisticated robotic tools for this professional area. In this way, the syllabus is oriented towards the integral training of graduates, offering them a profile of excellence with which they will be able to take on challenges such as the green uses of chemistry, and the postulates of the 2030 Agenda.







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*Delve into the communication tools that facilitate the dissemination of scientific results of the Chemical Industry through this program”*



## General Objectives

- ♦ Analyze the principles and methods for the separation of substances in multicomponent systems
- ♦ Master advanced techniques and tools for the configuration of heat exchange networks
- ♦ Apply fundamental concepts in the design of chemical products and processes
- ♦ Integrate environmental considerations in the design of chemical processes
- ♦ Analyze optimization techniques and simulation of chemical processes
- ♦ Apply simulation techniques to common unit operations in the chemical industry
- ♦ Examine the multi-product industry and strategies for its optimization
- ♦ Raise awareness of the importance of sustainability in terms of economy, environment, and society
- ♦ Promote environmental management in the chemical industry
- ♦ Compile technological advances in Chemical Engineering
- ♦ Evaluate the applicability and potential advantages of new technologies
- ♦ Develop a comprehensive view of modern chemical engineering
- ♦ Contextualize the importance of biomass in the current framework of sustainable development
- ♦ Determine the importance of biomass as an energy resource
- ♦ Examine the current situation of L+O+I in Chemical Engineering in order to highlight its importance in the current sustainability framework
- ♦ Encourage innovation and creativity in the research processes in Chemical Engineering
- ♦ Analyze the ways of protection, exploitation, and communication of L+O+I results
- ♦ Explore job opportunities in L+O+I in Chemical Engineering
- ♦ Explore innovative applications of chemical reactors
- ♦ Promote the integration of theoretical and practical aspects of chemical reactor design





## Specific Objectives

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### Module 1. Technological Advances in Chemical Engineering

- ◆ Analyze the relevant technologies in the treatment of industrial effluents
- ◆ Compile catalytic technologies applied to environmental processes of interest
- ◆ Explore those involved in the treatment of solid particulate materials
- ◆ Develop innovative chemical synthesis strategies
- ◆ Compile the latest advances in Biotechnology and Nanotechnology
- ◆ Analyze the importance of digitalization in the chemical industry
- ◆ Evaluate the impact of Blockchain and artificial intelligence on the chemical industry

### Module 2. Biomass Utilization Technologies

- ◆ Examine the role of biomass in achieving sustainable development goals
- ◆ Detail the types of biomass and their composition
- ◆ Analyze the advantages of using biomass as an energy resource
- ◆ Inspect the different pathways of mechanical, biological, chemical, and thermochemical conversion of biomass
- ◆ Determine the importance of biorefinery in the current framework of sustainability
- ◆ Examine biofuel generations and assess their feasibility
- ◆ Explore routes for biomass valorization
- ◆ Evaluate the integral valorization of waste biomass and its impact on the circular economy

### Module 3. L+O+I Chemical Engineering

- ◆ Apply a rigorous scientific methodology in Chemical Engineering research
- ◆ Determine the importance of the creative process in L+O+I
- ◆ Compile strategies and types of innovation
- ◆ Review international financing options for L+O+I in Chemical Engineering
- ◆ Examine the protection of L+O+I results
- ◆ Effectively evaluate scientific communication and dissemination tools
- ◆ Analyze the potential of a research career in Chemical Engineering



*An educational program that will allow you to achieve all your goals remotely, in the place and at the time of day of your choice"*

03

# Course Management

The faculty chosen by TECH for this Postgraduate Diploma are leaders in the field of Chemical Engineering. This statement is supported by their educational background and their advanced knowledge of the most complex and disruptive technologies in this industry. At the same time, many of them are part of projects related to sustainable and low-polluting solutions within this sector. In addition, TECH promotes a culture of educational excellence and a focus on experiential learning, which ensures that faculty members provide students with all the skills they need to advance their careers and take on a variety of challenges.



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*The faculty of this Postgraduate Diploma has mastered the L+O+I strategies in the Chemical Industry and the competitive management of their results”*

## Management



### Dr. Barroso Martín, Isabel

- ◆ Expert in Inorganic Chemistry, Crystallography and Mineralogy
- ◆ Postdoctoral researcher of the I Own Research and Transfer Plan of the University of Málaga
- ◆ Research Staff at the University of Málaga
- ◆ ORACLE Programmer in CMV Consultants Accenture
- ◆ PhD in Sciences from the University of Málaga
- ◆ Master's Degree in Applied Chemistry - specialization in materials characterization - from the University of Málaga
- ◆ Master's Degree in SE, High School, Vocational Training, and Language Teaching - specializing in Physics and Chemistry University of Malaga

## Professors

### Dr. Torres Liñán, Javier

- ◆ Expert in Chemical Engineering and Associated technologies
- ◆ Specialist in Environmental Chemical Technology
- ◆ Collaborator of the the Chemical Engineering Department of the University of Málaga
- ◆ PhD from the University of Málaga in the PhD program of Chemistry Chemical Technologies, Materials, and Nanotechnology
- ◆ Master's Degree in ESO, High School, Form. Prof. and Language Teaching. Esp. Physics and Chemistry from the University of Málaga
- ◆ Master's Degree in Chemical Engineering from the University of Málaga

### Dr. Barroso Martín, Santiago

- ◆ Legal Advisor in Paralegal at Vicox Legal
- ◆ Legal Content Editor at Engineering and Advanced Integration S.A. / BABEL
- ◆ Administrative Lawyer at the Illustrious College of Lawyers of Málaga
- ◆ Paralegal Advisor at Garcia de la Vega Attorneys
- ◆ Law Degree from the University of Málaga
- ◆ Master's Degree in Corporate Legal Consultancy (MAJE) from the University of Málaga
- ◆ Expert Master's Degree in Labor, Tax and Accounting Consulting by Help T Pyme



**Dr. Jiménez Gómez, Carmen Pilar**

- ◆ Technical support staff at the Central Research Services of the University of Málaga
- ◆ Laboratory technician assistant at Acerinox
- ◆ Laboratory technician in Axaragua
- ◆ Predoctoral fellow at the Department of Inorganic Chemistry, Crystallography, and Mineralogy of the University of Málaga
- ◆ PhD in Chemical Sciences from the University of Málaga
- ◆ Chemical Engineer from the University of Málaga
- ◆ Direction of Final Degree Project in Chemical Engineering (2016)
- ◆ Teaching collaborator in different degrees: Chemical Engineering, Energy Engineering, and Industrial Organization Engineering at the University of Málaga

**Dr. Montaña, Maia**

- ◆ Postdoctoral Researcher at the Department of Chemical, Energetic, and Mechanical Technology of the Rey Juan Carlos University
- ◆ Interim Assistant at the Department of Chemical Engineering, School of Engineering, La Plata National University
- ◆ Collaborating teacher in the course "Introduction to Chemical Engineering"
- ◆ Teaching tutor at the La Plata National University
- ◆ PhD in Chemistry from the La Plata National University
- ◆ Graduate in Chemical Engineering from the La Plata National University

# 04

# Structure and Content

In this TECH Global University program, the engineer will analyze in depth the most cutting-edge technologies in the Chemical Industry. During the first of its modules, it will delve into how digitalization and robotics have impacted this sector. Specifically, it will investigate the applications of Artificial Intelligence and Blockchain in the development of controlled reactions and innovative products. Seguidamente, el temario se enfoca en la utilización sostenible de biomasa para energía y materiales y, por último, aborda las estrategias I+D+i, la gestión de resultados y la comunicación científica. Everything 100% online in an innovative platform with a diversity of multimedia resources.





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*Do you need a program without strict schedules?  
Enroll in this Postgraduate Diploma and you will  
be able to personalize your learning 100% online”*

## Module 1. Technological Advances in Chemical Engineering

- 1.1. Green Technologies and Processes in the Chemical Industry
  - 1.1.1. Green Chemistry
  - 1.1.2. Industrial Liquid Effluent Treatment Technologies
  - 1.1.3. Industrial Gaseous Effluent Treatment Technologies
  - 1.1.4. Contaminated Soil Rehabilitation
- 1.2. Catalytic Technology for Environmental Processes
  - 1.2.1. Emerging Technologies in Automotive Catalysts
  - 1.2.2. Water Remediation Using Photocatalysts
  - 1.2.3. Technologies of Production and Purification of Hydrogen
- 1.3. Particle Technology
  - 1.3.1. Particle Characterization
  - 1.3.2. Solids Disintegration
  - 1.3.3. Solids Storage
  - 1.3.4. Solids Transportation
  - 1.3.5. Solids Drying Technology
- 1.4. Innovative Chemical Synthesis Technologies
  - 1.4.1. Microwave-Assisted Synthesis
  - 1.4.2. Photoresponse-Assisted Synthesis
  - 1.4.3. Synthesis by Electrochemical Technology
  - 1.4.4. Biocatalytic Technology for Ester Synthesis
- 1.5. Advances in Biotechnology
  - 1.5.1. Microbial Biotechnology
  - 1.5.2. Obtaining Bioproducts
  - 1.5.3. Biosensors
  - 1.5.4. Biomaterials
  - 1.5.5. Biotechnology and Food Safety
- 1.6. Advances in Nanotechnology
  - 1.6.1. Types and Nanoparticles Properties
  - 1.6.2. Inorganic Nanomaterials
  - 1.6.3. Carbon-Based Nanomaterials
  - 1.6.4. Nanocompounds
  - 1.6.5. Applications of Nanotechnology in the Chemical Industry



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- 1.7. Digitization Technologies in the Chemical Industry
    - 1.7.1. Chemical Industry 4.0
    - 1.7.2. Impact of Chemical Industry 4.0 on Processes and Systems
    - 1.7.3. Agile and SCRUM Methodologies in the Chemical Industry
  - 1.8. Process Robotization
    - 1.8.1. Automation in the Chemical Industry
    - 1.8.2. Collaborative Robots and Technical Specifications
    - 1.8.3. Industrial Applications
    - 1.8.4. Use of Industrial Robots
    - 1.8.5. Integration of Industrial Robots
  - 1.9. Blockchain in Chemical Engineering
    - 1.9.1. Blockchain for Sustainable Management of Chemical Processes
    - 1.9.2. Blockchain in Supply Chain Transparency
    - 1.9.3. Improving Security with Blockchain
    - 1.9.4. Chemical Traceability with Blockchain
  - 1.10. Artificial Intelligence in Chemical Engineering
    - 1.10.1. Application of Artificial Intelligence in the Industry 4.0
    - 1.10.2. Modeling of Chemical Processes with Artificial Intelligence
    - 1.10.3. Artificial Chemical Technology

## Module 2. Biomass Utilization Technologies

- 2.1. 2030 Agenda for Sustainable Development
  - 2.1.1. International Energy Agency's Sustainable Development Scenario
  - 2.1.2. Sustainable Development Goals of the 2030 Agenda
  - 2.1.3. Contribution of the Biomass Sector to the Achievement of the SDGs
- 2.2. Biomass Uses for Energy Purposes
  - 2.2.1. Biomass Manipulation
  - 2.2.2. Biomass Storage
  - 2.2.3. Use of Biomass for Energy Purposes

- 2.3. Mechanical Conversion of Biomass
  - 2.3.1. Pelletized
  - 2.3.2. Extrusion
  - 2.3.3. Extraction and Pressing
  - 2.3.4. Composites
- 2.4. Biological Conversion of Biomass
  - 2.4.1. Biomass Composting
  - 2.4.2. Anaerobic Digestion of Biomass
  - 2.4.3. Biomass Hydrolysis
- 2.5. Chemical Conversion of Biomass
  - 2.5.1. Transesterification
  - 2.5.2. Solvolysis
  - 2.5.3. Application of Chemical Conversion of Biomass: the Paper Industry
- 2.6. Thermochemicals Conversion of Biomass
  - 2.6.1. Combustion
  - 2.6.2. Pyrolysis
  - 2.6.3. Gasification
- 2.7. The Biorefinery Conceptual Design
  - 2.7.1. The Biorefinery
  - 2.7.2. Conceptual Design of a Biorefinery
  - 2.7.3. Current Biorefinery Challenges
- 2.8. Biofuels
  - 2.8.1. Biofuel Generations
  - 2.8.2. Liquid Biofuels
  - 2.8.3. Biocarburants
- 2.9. Valorization Routes: Obtainment of Platform Molecules
  - 2.9.1. Routes for Biomass Valorization
  - 2.9.2. Furfural as a Platform Molecule
  - 2.9.3. Lignin Derivatives as Precursors of Resins
  - 2.9.4. Biopolymers
- 2.10. Integral Valorization of Residual Biomass
  - 2.10.1. Valorization of Animal Residual Biomass
  - 2.10.2. Fractionation of Algal Biomass
  - 2.10.3. Valorization of By-Products from the Food Industry



### Module 3. L+O+I Chemical Engineering

- 3.1. L+O+I Chemical Engineering
  - 3.1.1. Scientific Methodology Applied to Investigation
  - 3.1.2. Factorial Design of Experiments
  - 3.1.3. Empirical Modeling
  - 3.1.4. Scientific Writing Strategies
- 3.2. Technological Innovation Strategies in the Chemical Industry: Innovation and Creativity
  - 3.2.1. Innovation in the Chemical Industry
  - 3.2.2. Creative Process
  - 3.2.3. Creativity Facilitating Techniques
- 3.3. Innovation in Chemical Engineering
  - 3.3.1. Taxonomy of Innovation
  - 3.3.2. Types of Innovation
  - 3.3.3. Dissemination of Innovation
  - 3.3.4. ISO 56000 Standard / ISO 166000 Terminology
- 3.4. Marketing of Innovation
  - 3.4.1. Differentiation and Positioning Strategies in Chemical Engineering
  - 3.4.2. Communication Management in Innovative Chemical Engineering
  - 3.4.3. Ethics in Chemical Engineering Innovation Marketing
- 3.5. Databases and Bibliographic Management Software
  - 3.5.1. Scopus
  - 3.5.2. Web of Science
  - 3.5.3. Scholar Google
  - 3.5.4. Bibliographic Management with Mendeley
  - 3.5.5. Bibliographic Management with EndNote
  - 3.5.6. Bibliographic Management with Zotero
  - 3.5.7. Patent Search in Databases
- 3.6. International Research Funding Programs
  - 3.6.1. Application for L+O+I projects
  - 3.6.2. Marie-Curie Research Fellowship Program
  - 3.6.3. International Research Funding Collaborations
- 3.7. Management of the Protection and Exploitation of L+O+I Results
  - 3.7.1. Intellectual Property
  - 3.7.2. Patents
  - 3.7.3. Industrial Property
- 3.8. Tools for the Communication of L+O+I Results
  - 3.8.1. Scientific Events
  - 3.8.2. Scientific Articles and Reviews
  - 3.8.3. Scientific Dissemination
- 3.9. Research Career in Chemical Engineering
  - 3.9.1. The Researcher in Chemical Engineering Professional Background and Education
  - 3.9.2. Chemical Engineering Advances
  - 3.9.3. Responsibility and Ethic in a Research Career in Chemical Engineering
- 3.10. Transfer of Results and Technology between Research Centers and Companies
  - 3.10.1. Interaction of Participants and Dynamics of Technology Transfer
  - 3.10.2. Technology Monitoring
  - 3.10.3. University-Business Projects
  - 3.10.4. Spin-off Companies



*Don't miss this opportunity to update your skills in scientific research with cutting-edge content and a prestigious faculty"*

05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

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*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”*



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*





*The student will learn to solve complex situations in real business environments through collaborative activities and real cases.*

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

The case method is the most widely used learning system in the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

## Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

*In 2019, we obtained the best learning results of all online universities in the world.*

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



### Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





**Case Studies**

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.



**Interactive Summaries**

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



**Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



06

# Certificate

The Postgraduate Diploma in Advanced Technologies in Chemical Industry guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.



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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"*

This program will allow you to obtain your **Postgraduate Diploma in Advanced Technologies in Chemical Industry** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Advanced Technologies in Chemical Industry**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development language  
virtual classroom



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